



CURRENT INDUSTRIAL REPORTS

Manufacturers' Shipments, Inventories, and Orders

July 1971



U.S. DEPARTMENT OF COMMERCE / Bureau of the Census

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SERIES: M3-1(71)-7

SUMMARY

New orders for manufactured products in July at \$58.0 billion increased \$1.0 billion or 1.7 percent from \$57.0 billion in June after seasonal adjustment. Shipments decreased \$800 million or 1.4 percent to \$58.2 billion from \$59.0 billion in June. Unfilled orders decreased \$200 million to \$77.6 billion at the end of July. Manufacturers' inventories decreased \$200 million to \$100.4 billion at the end of July. The inventories to shipments ratio increased from 1.70 to 1.73.

For the 3 months ending in July, the average change in new orders represents a 0.8 percent increase compared with a 0.4 percent decrease for the 3 months ending in April and a 3.3 percent increase for the 3 months ending in January.

NEW ORDERS

New orders for durable goods at \$31.7 billion increased \$1.0 billion or 3.3 percent over June. Transportation equipment increased \$500 million to \$7.6 billion, with the rise about equally divided between the motor vehicles and parts and aerospace industries. Machinery (electrical and non-electrical) increased \$300 million to \$9.8 billion. Among the supplementary series, new orders for defense products increased \$500 million to \$2.2 billion.

The data for June and prior months in this report are based on a revision of the monthly M3 series on shipments and orders, therefore, the June figures are revised levels of those published previously. The monthly series has been benchmarked to the Annual Survey of Manufactures for the years 1966 to 1969 and new seasonal factors calculated. The revised figures for 1966 through May 1971, the new seasonal factors and other analytic materials have been published in a report entitled M3-1.3, Manufacturers' Shipments, Inventories, and Orders: 1966-1971.

Chart 1 - Manufacturers' New Orders (Seasonally Adjusted)

Billions of Dollars*

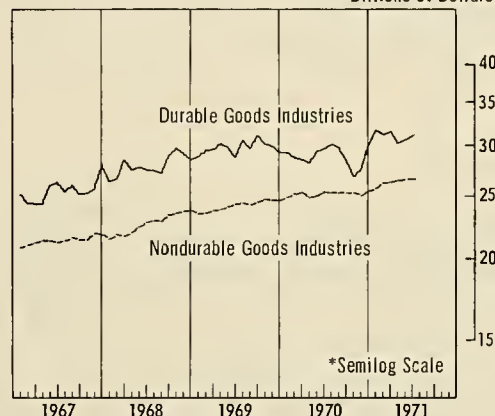
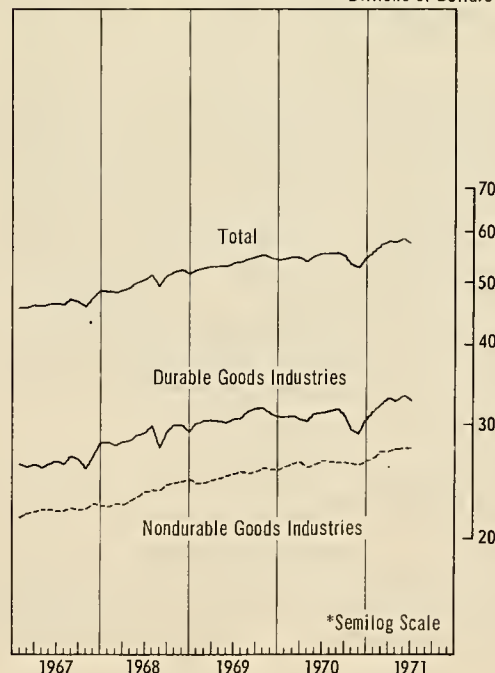


Chart 2 - Manufacturers' Shipments (Seasonally Adjusted)

Billions of Dollars*



SHIPMENTS

Shipments of durable goods decreased \$800 million to \$31.9 billion at the end of July. The aerospace industries decreased \$700 million to \$1.9 billion following June's large increase and primary metals dropped by \$100 million. Motor vehicles and parts increased \$200 million to \$4.9 billion. Shipments of nondurable goods showed no appreciable change at a level of \$26.3 billion.

UNFILLED ORDERS

Unfilled orders for durable goods declined \$200 million to \$74.6 billion at the end of July as an \$800 million decrease in primary metals was partially offset by increases in machinery (\$300 million) and transportation equipment (\$200 million).

INVENTORIES

Inventories in both the durable and nondurable goods industries decreased \$100 million to \$64.7 billion and \$35.6 billion respectively. The drop in durables was entirely due to steel mill stocks' \$400 million decline which was largely offset by rises in other durable industries. At the all manufacturing level, materials and supplies increased \$200 million, work in process decreased \$100 million, and finished goods decreased \$200 million from June.

SCHEDULED RELEASE DATES

The figures on the durable goods industries in this report supersede those issued earlier in the advance report on durable goods. The advance report is based on a tabulation of early reports and is limited to statistics on shipments, new orders, and unfilled orders for a few broad industry categories. The present report is based on more complete reporting, but the estimates are also considered preliminary. Final figures will appear as historical data in the report to be published for next month. The advance report on durable goods for August is scheduled for release on September 22, 1971 and the full report is scheduled for release on October 1.

For an explanation of terms used in this report see appendix following table 5.

Inquiries concerning these figures should be addressed to the U.S. Department of Commerce, Bureau of the Census, Industry Division, Washington, D.C. 20233.

Chart 3 – Manufacturers' Unfilled Orders (Seasonally Adjusted)

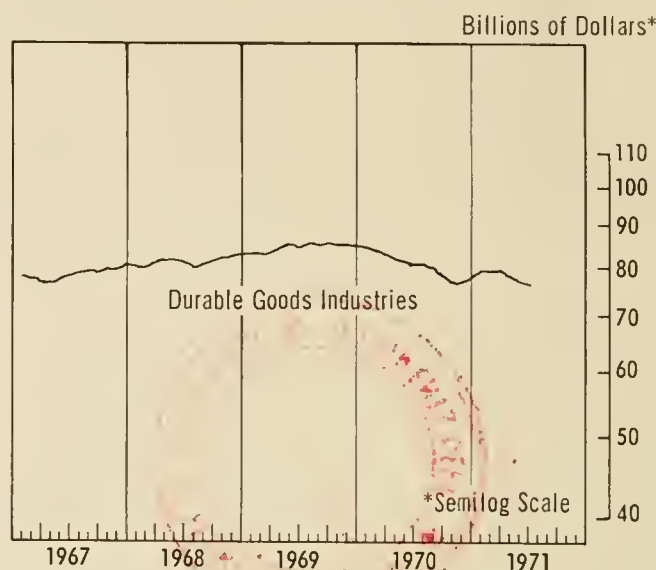


Chart 4 – Total Inventory (Seasonally Adjusted)

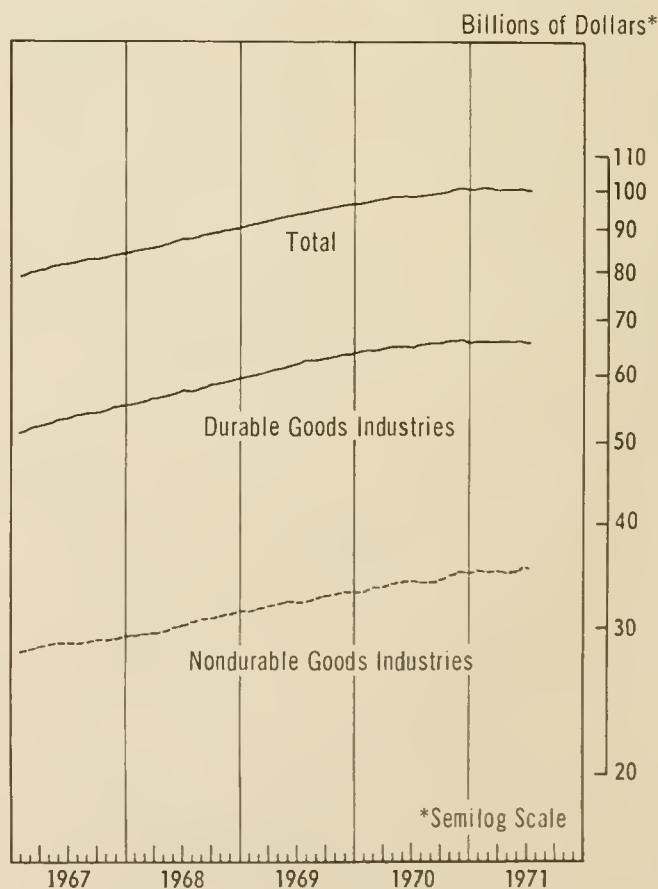


Table 1.--VALUE OF MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS, BY INDUSTRY GROUP

(Millions of dollars)

Industry group	Seasonally adjusted			Without seasonal adjustment ¹			Seasonally adjusted			Without seasonal adjustment		
	July 1971 ^p	June 1971 ^r	May 1971	July 1971 ^p	June 1971 ^r	July 1970	July 1971 ^p	June 1971 ^r	May 1971	July 1971 ^p	June 1971 ^r	July 1970
	Shipments						Total inventories					
All manufacturing industries:												
Total.....	58,156	58,988	58,352	53,589	62,142	51,154	100,358	100,536	100,647	99,996	100,734	98,803
Total, excluding transportation....	50,724	50,977	50,964	47,684	53,485	45,242	86,574	86,868	86,612	86,546	87,330	84,662
Durable goods industries, total.....	31,857	32,650	31,850	28,593	34,949	27,203	64,743	64,825	65,079	64,536	65,046	64,501
Stone, clay, and glass products.....	1,798	1,762	1,713	1,770	1,905	1,481	2,296	2,280	2,269	2,316	2,327	2,231
Primary metals, total.....	5,294	5,404	5,501	4,907	5,810	4,345	8,860	9,170	9,236	8,761	9,072	8,781
Blast furnaces, steel mills.....	2,952	2,750	2,641	2,787	3,000	2,105	4,464	4,815	4,985	4,375	4,709	4,677
All other primary metals.....	2,342	2,654	2,860	2,120	2,810	2,240	4,396	4,355	4,251	4,389	4,363	4,104
Fabricated metal products, total.....	3,461	3,550	3,591	3,249	3,800	3,345	7,575	7,410	7,283	7,715	7,596	6,911
Metal cans, barrels, and drums.....	352	351	317	387	395	374	844	753	717	903	827	711
Machinery, except electrical, total.....	4,951	5,015	4,855	4,498	5,383	4,347	13,823	13,854	13,837	13,771	13,891	13,793
Engines and turbines.....	283	356	304	233	398	243	943	942	938	938	919	910
Farm machinery and equipment.....	483	481	431	406	505	306	1,136	1,137	1,122	1,109	1,133	1,144
Construction, mining, and material handling equipment.....	770	812	802	740	901	760	2,697	2,689	2,636	2,664	2,694	2,544
Metalworking machinery.....	376	377	343	330	388	295	1,194	1,192	1,199	1,192	1,187	1,253
General industrial machinery.....	396	417	396	378	451	402	1,167	1,175	1,170	1,169	1,187	1,168
Electrical machinery, total.....	4,469	4,476	4,501	4,077	4,759	3,919	9,893	9,973	9,930	9,955	10,181	10,261
Electrical transmission and distribution equipment and industrial apparatus....	921	891	878	841	967	795	2,201	2,220	2,224	2,218	2,236	2,096
Household appliances, including radio and TV.....	926	985	1,028	886	1,096	857	1,959	1,937	1,897	1,989	2,017	1,980
Communication equipment.....	1,213	1,310	1,306	1,115	1,358	1,074	2,932	2,960	2,981	2,920	3,008	3,227
Transportation equipment, total.....	7,432	8,011	7,388	5,905	8,657	5,912	13,784	13,668	14,035	13,450	13,404	14,141
Motor vehicles and parts.....	4,856	4,647	4,576	3,551	5,298	3,108	4,229	4,289	4,193	3,886	4,019	3,626
Aircraft, missiles, and parts.....	1,925	2,642	2,141	1,752	2,612	2,079	7,418	7,347	7,860	7,428	7,359	8,665
Instruments and related products.....	1,043	982	1,007	946	1,034	936	2,331	2,358	2,379	2,368	2,408	2,467
All other durable goods industries.....	3,409	3,450	3,294	3,241	3,601	2,918	6,181	6,112	6,110	6,197	6,167	5,916
Nondurable goods industries, total.....	26,299	26,338	26,502	24,996	27,193	23,951	35,615	35,711	35,568	35,460	35,688	34,302
Food and kindred products, total.....	8,697	8,699	8,795	8,422	8,961	7,930	8,841	8,966	8,894	8,600	8,631	8,158
Meat products.....	1,912	1,899	1,920	1,908	1,943	1,995	850	854	833	817	837	802
Tobacco products.....	491	495	471	506	533	474	2,139	2,180	2,190	1,996	2,103	2,018
Textile mill products.....	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)
Paper and allied products, total.....	2,215	2,219	2,171	2,071	2,300	1,980	2,761	2,731	2,738	2,801	2,779	2,752
Pulp, paper, etc.....	909	934	895	858	960	839	1,034	1,019	1,022	1,043	1,029	1,011
Chemicals and allied products, total.....	4,376	4,363	4,315	4,104	4,549	3,812	6,804	6,808	6,799	6,799	6,791	6,494
Industrial chemicals, except pigments....	1,474	1,421	1,377	1,378	1,488	1,246	1,893	1,905	1,885	1,880	1,876	1,908
Petroleum and coal products.....	2,360	2,287	2,295	2,342	2,382	2,181	2,402	2,402	2,375	2,404	2,372	2,296
Rubber and plastics products, n.e.c.....	1,648	1,582	1,604	1,512	1,690	1,424	2,158	2,131	2,131	2,125	2,128	2,085
All other nondurable goods industries.....	6,512	6,693	6,851	6,039	6,778	6,150	10,510	10,493	10,441	10,735	10,884	10,499
	New orders						Unfilled orders					
All manufacturing industries:												
Total.....	57,977	57,009	57,028	53,914	60,001	51,508	77,592	77,775	79,749	77,613	77,294	83,105
Total, excluding transportation....	50,380	49,944	50,070	47,382	52,196	45,021	53,130	53,478	54,505	53,092	53,400	55,511
Durable goods industries, total.....	31,676	30,666	30,601	28,917	32,805	27,573	74,566	74,748	76,727	74,533	74,211	80,230
Primary metals, total.....	4,500	4,536	4,800	3,990	4,619	4,109	5,255	6,049	6,917	5,066	5,982	6,759
Blast furnaces, steel mills.....	2,130	1,945	2,079	1,828	1,932	1,978	2,412	3,235	4,040	2,263	3,222	3,389
Fabricated metal products.....	3,512	3,462	3,532	3,185	3,693	3,200	10,958	10,909	10,995	10,901	10,966	10,714
Machinery, except electrical, total.....	4,887	5,122	4,809	4,486	5,430	4,220	14,322	14,385	14,277	14,310	14,324	14,932
Engines and turbines.....	231	375	398	221	421	310	4,915	4,967	4,948	4,886	4,897	4,672
Construction, mining, and material handling equipment.....	827	893	767	750	943	730	2,405	2,348	2,267	2,412	2,402	2,531
Metalworking machinery.....	381	388	322	351	395	251	1,056	1,052	1,041	1,073	1,052	1,366
General industrial machinery.....	373	402	416	363	439	373	1,237	1,260	1,275	1,233	1,248	1,174
Electrical machinery, total.....	4,879	4,333	4,409	4,654	4,693	4,171	14,335	13,925	14,069	14,397	13,820	14,891
Electrical transmission and distribution equipment and industrial apparatus....	1,035	844	947	914	941	713	3,927	3,814	3,861	3,966	3,892	4,029
Household appliances, including radio and TV.....	915	908	1,050	910	1,082	822	606	616	694	679	655	740
Communication equipment.....	1,442	1,264	1,223	1,483	1,314	1,440	5,961	5,732	5,778	5,853	5,486	5,843
Transportation equipment, total.....	7,597	7,065	6,958	6,532	7,805	6,487	24,462	24,297	25,244	24,521	23,894	27,594
Aircraft, missiles, and parts.....	2,243	1,968	1,623	2,420	1,882	2,563	17,687	17,369	18,044	17,782	17,113	21,340
All other durable goods industries.....	6,301	6,148	6,093	6,070	6,565	5,386	5,234	5,183	5,225	5,338	5,225	5,340
Nondurable goods industries, total.....	26,301	26,343	26,427	24,997	27,196	23,935	3,026	3,027	3,022	3,080	3,083	2,875
Industries with unfilled orders.....	6,942	7,082	6,973	6,356	7,266	6,160	3,026	3,027	3,022	3,080	3,083	2,875
Industries without unfilled orders.....	19,359	19,261	19,454	18,641	19,930	17,775	-	-	-	-	-	-

- Represents zero. ^p Preliminary. ^r Revised.¹ Adjusted for trading-day and calendar-month variations.² Beginning with July 1971, the shipments level for this series appears to be high compared with information shown in other textile series. All data for this industry group are, therefore, withheld pending investigation and revision.

Table 2.--VALUE OF MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS, FOR MARKET CATEGORIES AND SUPPLEMENTARY SERIES
(Millions of dollars)

Industry group	Seasonally adjusted			Without seasonal adjustment ¹			Seasonally adjusted			Without seasonal adjustment		
	July 1971 ^P	June 1971 ^R	May 1971	July 1971 ^P	June 1971 ^R	July 1970	July 1971 ^P	June 1971 ^R	May 1971	July 1971 ^P	June 1971 ^R	July 1970
	Shipments						Total inventories					
All manufacturing industries, total..	58,156	58,988	58,352	53,589	62,142	51,154	100,358	100,536	100,647	99,996	100,734	98,803
Durable goods industries, total.....	31,857	32,650	31,850	28,593	34,949	27,203	64,743	64,825	65,790	64,536	65,046	64,501
Nondurable goods industries, total.....	26,299	26,338	26,502	24,996	27,193	23,951	35,615	35,711	35,568	35,460	35,688	34,302
Industry groups arranged by market categories:												
Home goods and apparel.....	5,254	5,437	5,583	4,902	5,573	4,918	10,652	10,628	10,561	10,888	11,095	10,500
Consumer staples.....	11,219	11,286	11,274	10,818	11,545	10,213	13,678	13,774	13,723	13,377	13,444	12,805
Equipment and defense products, except automotive.....	8,370	9,134	8,555	7,675	9,581	7,713	25,473	25,371	25,808	25,437	25,506	26,431
Automotive equipment.....	5,435	5,226	5,136	4,103	5,933	3,786	5,384	5,428	5,322	5,008	5,144	4,755
Construction materials, supplies, and intermediate products.....	5,252	5,171	5,116	5,172	5,637	4,449	8,074	8,025	7,973	8,135	8,133	7,722
Other materials and supplies and intermediate products.....	22,626	22,734	22,688	20,919	23,873	20,075	37,097	37,310	37,260	37,151	37,412	36,590
Supplementary series: ²												
Household durable goods industries.....	2,271	2,407	2,396	2,042	2,509	1,938	4,935	4,895	4,850	5,005	5,029	4,870
Producers' capital goods industries.....	6,354	6,396	6,203	5,786	6,851	5,591	17,528	17,507	17,440	17,549	17,602	17,114
Defense products industries (old series).	3,543	4,338	3,820	3,260	4,392	3,557	11,303	11,273	11,805	11,289	11,345	12,886
Defense products (new series)*.....	2,015	2,589	2,006	1,839	2,594	1,878	5,502	5,507	6,067	5,508	5,533	7,148
	New orders						Unfilled orders					
All manufacturing industries, total..	57,977	57,009	57,028	53,914	60,001	51,508	77,592	77,775	79,749	77,613	77,294	83,105
Durable goods industries, total.....	31,676	30,666	30,601	28,917	32,805	27,573	74,566	74,748	76,727	74,533	74,211	80,230
Nondurable goods industries, total.....	26,301	26,343	26,427	24,997	27,196	23,935	3,026	3,027	3,022	3,080	3,083	2,875
Industry groups arranged by market categories:												
Home goods and apparel.....	5,316	5,365	5,682	5,054	5,582	4,934	2,113	2,048	2,140	2,230	2,076	2,064
Consumer staples.....	11,225	11,266	11,273	10,821	11,531	10,203						
Equipment and defense products, except automotive.....	8,796	8,298	8,037	8,494	8,976	8,394	42,987	42,525	43,401	42,911	42,019	44,983
Automotive equipment.....	5,472	5,184	5,234	4,176	5,865	3,810						
Construction materials, supplies, and intermediate products.....	5,416	5,077	5,066	5,223	5,567	4,241	10,593	10,430	10,522	10,609	10,559	10,204
Other materials and supplies and intermediate products.....	21,752	21,819	21,736	20,146	22,480	19,926	21,899	22,772	23,686	21,863	22,640	25,854
Supplementary series: ²												
Household durable goods industries.....	2,337	2,338	2,483	2,201	2,523	1,969	1,737	1,672	1,740	1,850	1,691	1,714
Producers' capital goods industries.....	6,244	6,237	6,193	5,761	6,830	5,432	22,917	23,028	23,186	22,986	23,012	23,147
Defense products industries (old series).	4,098	3,628	3,233	4,268	3,644	4,374	24,342	23,787	24,497	24,306	23,298	27,878
Defense products (new series)*.....	2,187	1,678	1,573	2,377	1,655	3,045	18,383	18,211	19,122	18,394	17,856	19,906

*During 1968 manufacturers in ordnance, communications, aircraft and aircraft parts, and ship building industries began to provide aggregate figures on shipments, orders, and total inventories of work performed for the Department of Defense. The results of these reports are included in these new defense series. Since there are no historical data available to develop separate seasonal factors for these reporters, the data have been seasonally adjusted using the factors of these industries. ^PPreliminary. ^RRevised. ¹Shipments and new orders adjusted for trading-day and calendar-month variations; unfilled orders and inventories as of end of month. The supplementary series are regroupings of the separate industry categories as follows:

Household durable goods industries - Household furniture; kitchen articles and pottery; cutlery, handtools, and hardware; household appliances; ophthalmic goods, watches, and clocks; and miscellaneous personal goods.

Producers' capital goods (formerly machinery and equipment) industries - Machinery, except electrical (excluding farm machinery and equipment and machine shops), electrical machinery (excluding household appliances, communication equipment and electronic components), shipbuilding and repairing, and railroad and street car equipment.

Defense products industries (old series) - Based on reports for companies classified in the communication equipment, complete aircraft, aircraft parts, and ordnance industries. (Thus, this series includes significant amounts of nondefense work in these industries and omits defense work performed in the ship building industry.)

Defense products (new series) - Based on separate reports on defense work filed by large defense contractors in the following industries: ordnance, communications, complete aircraft, aircraft parts, and ship building. Thus, it differs from the old series in that it includes defense activity in ship building and excludes nondefense work in ordnance, communications, complete aircraft, and aircraft parts. The data are comparable to those published annually in the MA-175, Shipments of Defense-Oriented Industries, for the specified industries.

Table 3.--MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS MONTH-TO-MONTH AND LONG TERM PERCENT CHANGES
(Based on seasonally adjusted data)

Item and industry group	Month-to-month 1971			Average monthly rates of change				Average, 1965-1970	
	June- July	May- June	April- May	3 months			12 months	Average rise	Average decline
				April- July 1971	Jan.- April 1971	Oct. 1970- Jan. 1971	July 1970- July 1971		
Shipments:									
All manufacturing industries.....	-1.4	+1.1	+1.2	+0.3	+1.2	+1.5	+0.4	+1.1	-1.2
Durable goods industries, total.....	-2.4	+2.5	+1.7	+0.6	+1.3	+2.4	+0.5	+1.8	-1.8
Nondurable goods industries, total.....	-0.1	-0.6	+0.5	-0.1	+1.1	+0.6	+0.4	+1.0	-0.6
Total inventories:									
All manufacturing industries.....	-0.2	-0.1	+0.2	0.0	-0.2	+0.2	+0.1	+0.7	-0.3
New orders:									
All manufacturing industries.....	+1.7	0.0	+0.8	+0.8	-0.4	+3.3	+0.4	+1.9	-1.4
Durable goods industries, total.....	+3.3	+0.2	+1.2	+1.6	-1.5	+5.8	+0.5	+3.2	-2.3
Nondurable goods industries, total.....	-0.2	-0.3	+0.2	-0.3	+1.0	+0.5	+0.3	+1.0	-0.6
Unfilled orders:									
Durable goods industries, total.....	-0.2	-2.6	-1.6	-1.5	-0.4	+1.0	-0.6	+1.1	-0.7

Table 4.--VALUE OF MANUFACTURERS' INVENTORIES, BY STAGE OF FABRICATION, BY INDUSTRY GROUP
(Millions of dollars)

Industry group	Seasonally adjusted			Without seasonal adjustment			Seasonally adjusted			Without seasonal adjustment		
	July 1971 ^P	June 1971 ^r	May 1971	July 1971 ^P	June 1971 ^r	July 1970	July 1971 ^P	June 1971 ^r	May 1971	July 1971 ^P	June 1971 ^r	July 1970
	Total						Materials and supplies					
All manufacturing industries, total..	100,358	100,536	100,647	99,996	100,734	98,803	32,925	32,754	32,488	32,746	32,483	31,009
Durable goods industries, total.....	64,743	64,825	65,079	64,536	65,046	64,501	20,008	19,696	19,570	19,968	19,603	18,601
Stone, clay, and glass products.....	2,296	2,280	2,269	2,316	2,327	2,231	756	757	758	759	757	715
Primary metals.....	8,860	9,170	9,236	8,764	9,072	8,781	3,434	3,420	3,330	3,415	3,342	3,182
Machinery (electrical and nonelectrical).	23,716	23,827	23,767	23,726	24,072	24,054	6,524	6,490	6,495	6,617	6,536	6,389
Transportation equipment.....	13,784	13,668	14,035	13,450	13,404	14,141	3,167	3,151	3,285	2,922	3,037	2,892
All other durable goods industries.....	16,087	15,880	15,772	16,280	16,171	15,294	6,127	5,878	5,702	6,255	5,931	5,423
Nondurable goods industries, total.....	35,615	35,711	35,568	35,460	35,688	34,302	12,917	13,058	12,918	12,778	12,880	12,408
Chemicals and allied products.....	6,804	6,808	6,799	6,799	6,791	6,494	2,367	2,386	2,374	2,378	2,372	2,268
Petroleum and coal products.....	2,402	2,402	2,375	2,404	2,372	2,296	573	559	541	573	564	545
Rubber and plastics products, n.e.c.....	2,158	2,131	2,131	2,125	2,128	2,085	615	648	698	631	656	717
All other nondurable goods industries.....	24,251	24,370	24,263	24,132	24,397	23,427	9,362	9,465	9,305	9,196	9,288	8,878
	Work in process						Finished goods					
All manufacturing industries, total..	33,341	33,472	33,702	33,318	33,433	34,844	34,092	34,310	34,457	33,932	34,818	32,950
Durable goods industries, total.....	28,183	28,329	28,547	28,104	28,242	29,626	16,552	16,800	16,962	16,464	17,201	16,274
Stone, clay, and glass products.....	306	301	303	307	308	306	1,234	1,222	1,208	1,250	1,262	1,210
Primary metals.....	2,975	3,068	3,126	2,943	3,034	3,056	2,451	2,682	2,780	2,406	2,696	2,543
Machinery (electrical and nonelectrical).	10,651	10,758	10,678	10,585	10,750	11,226	6,541	6,579	6,594	6,524	6,786	6,439
Transportation equipment.....	9,226	9,112	9,333	9,181	8,974	9,784	1,391	1,405	1,417	1,347	1,393	1,465
All other durable goods industries.....	5,025	5,090	5,107	5,088	5,176	5,254	4,935	4,912	4,963	4,937	5,064	4,617
Nondurable goods industries, total.....	5,158	5,143	5,155	5,214	5,191	5,218	17,540	17,510	17,495	17,468	17,617	16,676
Chemicals and allied products.....	915	923	926	912	913	851	3,522	3,499	3,499	3,509	3,506	3,375
Petroleum and coal products.....	453	460	456	462	470	441	1,376	1,383	1,378	1,369	1,338	1,310
Rubber and plastics products, n.e.c.....	331	341	330	327	337	336	1,212	1,142	1,103	1,167	1,135	1,032
All other nondurable goods industries.....	3,459	3,419	3,443	3,513	3,471	3,590	11,430	11,486	11,515	11,423	11,638	10,959

^P Preliminary.
^r Revised.

Chart 5 – Ratio of Manufacturers' Inventories to Shipments
and Unfilled Orders to Shipments, Durable Goods Industries
(Seasonally Adjusted)

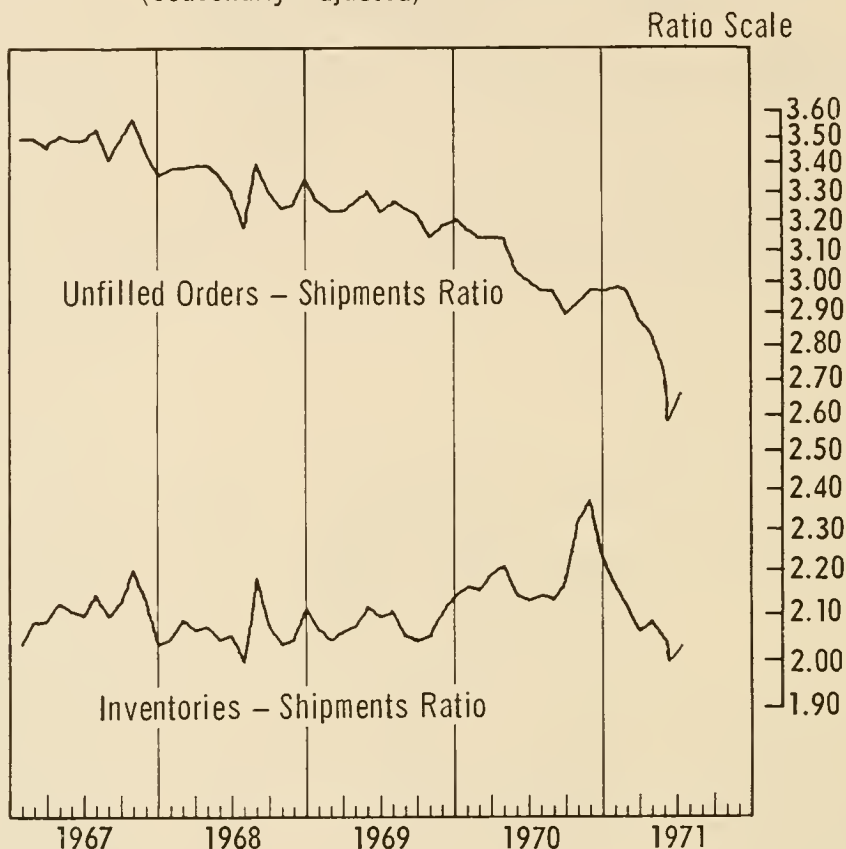


Table 5.--RATIO OF MANUFACTURERS' INVENTORIES TO SHIPMENTS AND UNFILLED ORDERS TO SHIPMENTS, BY INDUSTRY GROUP
(Based on seasonally adjusted data)

Industry group	Inventories – shipments ratio				Unfilled orders – shipments ratio ¹ 'months' backlog)			
	July 1971 ^p	June 1971 ^r	May 1971	July 1970	July 1971 ^p	June 1971 ^r	May 1971	July 1970
All manufacturing industries, total.....	1.73	1.70	1.72	1.79	2.22	2.16	2.26	2.46
Durable goods industries, total.....	2.03	1.99	2.04	2.14	2.66	2.58	2.72	2.97
Stone, clay, and glass products.....	1.28	1.29	1.32	1.47	(NA)	(NA)	(NA)	(NA)
Primary metals.....	1.67	1.70	1.68	1.86	0.99	1.12	1.26	1.47
Fabricated metals.....	2.19	2.09	2.03	1.90	3.52	3.41	3.36	3.32
Machinery, except electrical.....	2.79	2.76	2.85	2.90	2.89	2.87	2.94	3.13
Electrical machinery.....	2.21	2.23	2.21	2.37	3.21	3.11	3.13	3.45
Transportation equipment.....	1.85	1.71	1.90	2.02	5.83	4.99	5.92	6.09
Instruments and related products.....	2.23	2.40	2.36	2.35	(NA)	(NA)	(NA)	(NA)
Nondurable goods industries, total.....	1.35	1.36	1.34	1.37	0.44	0.43	0.43	0.42
Food and kindred products.....	1.02	1.03	1.01	1.03	(X)	(X)	(X)	(X)
Tobacco products.....	4.36	4.40	4.65	4.70	(X)	(X)	(X)	(X)
Textile mill products.....	²	²	²	²	(NA)	(NA)	(NA)	(NA)
Paper and allied products.....	1.25	1.23	1.26	1.28	(NA)	(NA)	(NA)	(NA)
Chemicals and allied products.....	1.55	1.56	1.58	1.59	(X)	(X)	(X)	(X)
Petroleum and coal products.....	1.02	1.05	1.03	1.04	(X)	(X)	(X)	(X)
Rubber and plastics products, n.e.c.....	1.31	1.35	1.33	1.36	(X)	(X)	(X)	(X)

NA Not available. ^pPreliminary. ^rRevised. (X) Not applicable.

¹Excludes the following industries with no unfilled order: Wooden containers; glass containers; metal cans, barrels and drums; motor vehicle assembly operations; foods and related products; tobacco; apparel and related products; chemicals; petroleum and coal products; and rubber and plastics products, n.e.c.

²Beginning with July 1971, the shipments level for this series appears to be high compared with information shown in other textile series. All data for this industry group are, therefore, withheld pending investigation and revision.

Appendix

The following is a description of the survey and definitions used. These are provided to clarify the meaning of the items involved and do not represent any revisions from those definitions previously employed.

DESCRIPTION OF THE SURVEY

The Manufacturers' Shipments, Inventories, and Orders survey provides monthly figures that are comparable to the annual totals published each year in the annual survey of manufactures (ASM). The ASM is based on a sample of approximately 60,000 manufacturing establishments drawn from the 5-year census universe of about 310,000 establishments. In the ASM, each manufacturing establishment provides data on employment, payrolls, shipments, cost of materials, capital expenditures, and inventories as well as other selected items. The establishments do not provide information on unfilled orders or new orders. Since the ASM is establishment based, it provides data for each of the 425 manufacturing industries in the Standard Industrial Classification System (SIC) and area data for industry groups.

The monthly survey M3-1 does not provide information at the complete SIC industry detail because of the smaller size of the reporting panel and the fact that most companies cannot provide shipments, inventories, and orders data monthly for individual establishments.

The monthly reporting panel consists of approximately 5,000 reporting units and includes virtually all companies with 1,000 or more employees and a sample of the smaller ones. The reporting unit typically comprises the entire operations of a company although many of the larger diversified companies file separate divisional type reports for their operations in different industries.

Most of the reporting units include mixed industry activity even within the broad industry categories of the monthly survey. The survey methodology assumes that the month-to-month changes of the reporting units classified in each industry category represent effectively the month-to-month movements of the establishments in the SIC industries which make up the category. Thus, the monthly reports are used to update the ASM estimates by using a link relative of matched companies in each industry.

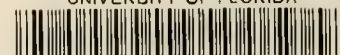
EXPLANATION OF TERMS

Value of Shipments--Shipments in the monthly survey are equivalent to value of shipments as reported in the ASM which are received or receivable net selling values, f.o.b. plant, after discounts and allowances and excluding freight charges and excise taxes. Included in shipments are the value of all products sold, transferred to other plants of the same company, or shipped on consignment.

Shipments also include receipts of establishments in the industry for contract work performed for others, resales, receipts for miscellaneous activities such as the sale of scrap and refuse; value of installation and repair work performed by employees of the plant; and value of research and development performed at the plant. In the aircraft industry and shipbuilding, the value of work done in a given year varies considerably from the value of shipments because of the long lead time between the input of the materials and labor and the shipments of the completed aircraft or ship. In the annual survey, therefore, the value of work done during the year is requested rather than the value of shipments.

The value of shipments figures developed from the ASM contain duplication at the all manufacturing and industry group levels since the products of some industries are used as materials by other industries within the industry group. With the exception of motor vehicles, it is not significant at the 4-digit SIC group level. Since the M3-1 industry categories typically are groupings of industries, this duplication is significant for the all manufacturing, durable goods and nondurable goods categories and the various market groups. The significance of the duplication within the specific M3-1 industry groups varies depending on the 4-digit industry composition of these groups. It is most pronounced in a few highly integrated industry areas such as primary metals and motor vehicles and parts.

Since most monthly reports are for the entire company or major divisions rather than establishments, the companies are requested to report net sales, i.e., total company billings after discounts and allowances. Companies which file divisional reports are requested to treat transfers from one division of the company to another as if they were net sales to outside customers. Although this



definition of shipments in the monthly reports differs from that used in the annual establishment reports, it is assumed that the month-to-month changes in company sales in the industry are representative of the month-to-month shipments of the establishments in the industry.

Inventories--End-of-month inventories in the monthly survey are identical in definition to the end-of-year inventories in the ASM. In the ASM, respondents are asked to report inventories of individual establishments at approximate current cost if feasible; otherwise, "at book values." Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the aggregate inventories for establishments in an industry is not precise. The figures on the change in inventories from one period to the next are of greater significance than the actual aggregates.

Inventories are reported by stage of fabrication: (a) finished goods; (b) work in process; and (c) materials, supplies, fuel, and other inventories. In using inventories by stage of fabrication at the all manufacturing and 2-digit industry levels as well as for the durable and non-durable goods sectors, it should be noted that a finished product of one industry may be a raw material for another industry at the next stage of fabrication. Insofar as the durable and nondurable goods sectors and also the 2-digit industry groups contain industries with successive stages of processing, the same type of commodity may be included under different inventory categories in the aggregate statistics.

New Orders Received and Unfilled Orders--

Orders as reported in the monthly survey are net of cancellations during the month. They include orders received during the period and also filled during the period as well as those orders received for future delivery. They also include the net sales value of contract change documents which increase or decrease the sales value of the unfilled orders to which they relate. Orders include only those supported by binding legal documents such as signed contracts, or letter contracts. In case of letter contracts the full amount of the sales value is included if the parties are in substantial agreement on the amount; otherwise, only the funds specifically authorized to be expended are included. The respondent is instructed to deduct the sales value of partial or complete cancellation of existing orders.

Unfilled orders include orders as defined above that have not yet passed through the sales account. Generally, unfilled orders at the end of the reporting period are equal to unfilled orders at the beginning of the period plus net new orders received less net sales.

While both new orders and unfilled orders are used in reviewing individual company reports for consistency, only unfilled orders are estimated directly in the tabulated totals. New orders are derived from the shipments plus net change in unfilled orders for each industry category. This procedure is followed for seasonally adjusted data as well as for the unadjusted data. Shipments and unfilled orders are seasonally adjusted independently. Seasonally adjusted new orders are derived from seasonally adjusted shipments and seasonally adjusted unfilled orders.